Project: Shoreline Protection/Marsh Creation at Lake Borgne DNR Contract No. 2503-03-15 PO-30 File: 02-115 Date: 17-Feb-03 Technician: BT For: State of Louisiana, Department of Natural Resources C/o Sigma Consulting Group, Inc. 10			200,01 201111	n na agus fan Roman en til Nortoenekke - De oar de State after rek	13
For: State of Louisiana, Department of Natural Resources c/o Sigma Consulting Group, Inc. State of Louisiana, Department of Natural Resources c/o Sigma Consulting Group, Inc. Technician: BT	Pr	oject:			
rechnician: BT Samurate Samu			DNR Contract No. 2503-03-15 PO-30		5AC 1 1 3 3
Standard Penetration Test W 89° 50' 43.74"		For	State of Louisiana, Department of Natural Resources	Date:	
Standard Penetration Test Classification Sample (SL5) Slickensided 2 feet top of casing to top of barge deck 4 feet top of barge deck to water surface 2 feet water surface to mudline Very soft dark brown organic clay Very soft dark brown organic clay Very soft dark brown peat Very soft gray organic clay Very soft gray organic clay Very soft gray slightly organic clay Very soft gray slightly organic matter traces Very soft gray slightly organic clay Very soft gray slightly organic clay			c/o Sigma Consulting Group, Inc.	Technician:	BT
Standard Penetration Test Classification Sample (SL5) Slickensided 2 feet top of casing to top of barge deck 4 feet top of barge deck to water surface 2 feet water surface to mudline Very soft dark brown organic clay Very soft dark brown organic clay Very soft dark brown peat Very soft gray organic clay Very soft gray organic clay Very soft gray slightly organic clay Very soft gray slightly organic matter traces Very soft gray slightly organic clay Very soft gray slightly organic clay				N 000 5717 (A 11
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Very soft gray slightly organic clay	20-				
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Very soft gray slightly organic clay	05		Very soft gray clay with organic matter traces		
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Pı	roject:	Shoreline Protection/Marsh Creation at Lake Borgne		Boring:	14
		DNR Contract No. 2503-03-15 PO-30		File:	02-115
	For	State of Louisiana, Department of Natural Resources		Date:	17-Feb-03
		c/o Sigma Consulting Group, Inc.	s constanting of the second	Technician:	ВТ
Depth Feet	SAMPLES	Undisturbed Sample Standard Penetration Test		N 29° 57' 14. W 89° 50' 40	
- 0 -	SAM	Classification Sample (SLS) Slickensided		Boring Depth:	28 Feet
0		2 feet top of casing to top of barge deck			
		4 Feet top of barge deck to water surface			
- 5 -		2 Feet water surface to mudline			-
		· · · · · · · · · · · · · · · · · · ·			
- 10 <i>-</i>		- Very soft brown organic clay -			_
		Very soft brown peat			
		Very soft brown peat			
- 15 <i>-</i>		Very soft brown organic clay			
1000 mark 1000 mark		Very soft gray organic clay			
		- Very soft gray slightly organic clay			
– 20 –		-			-
	1 1				
- 25 -		Very soft gray slightly organic clay with 1" clay layer			_
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		Very soft gray slightly organic clay			
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P	roject:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	15
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	State of Louisiana, Department of Natural Resources	Date:	17-Feb-03
		c/o Sigma Consulting Group, Inc.	Technician:	ВТ
Depth Feet	SAMPLES	Undisturbed Sample Standard Penetration Test Classification Sample	N 29° 56' 59. W 89° 50' 30	
- 0 -	SAI	(SLS) Slickensided	Boring Depth:	28 Feet
•		2 feet top of casing to top of barge deck		
		4 Feet top of barge deck to water surface		
- 5 -		2 Feet water surface to mudline		-
10		Very soft dark brown peat		
- 10 -		Very soft dark brown organic clay		7
		Very soft dark brown peat		
– 15 –		Soft gray silty clay		-
		Very soft gray slightly organic clay	7	
- 20 -		Very soft gray slightly organic clay		
		-		
- 25 -		Very soft gray slightly organic clay		-
		Very soft gray slightly organic clay		
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Geotechnical Engineers

Pi	roject:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	16
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	State of Louisiana, Department of Natural Resources	Date:	17-Feb-03
		c/o Sigma Consulting Group, Inc.	Technician:	ВТ
		Undisturbed Sample	N 29° 56' 49	.56"
Depth Feet	SAMPLES	Standard Penetration Test	W 89° 50' 25	5.38"
	SAM	Classification Sample	D. 1 - D. 11	00 Foot
•		(SLS) Slickensided	Boring Depth:	28 Feet
- 0 -		2 feet top of casing to top of barge deck		
S		4 Feet top of barge deck to water surface		
- 5 -		2 Feet water surface to mudline		
10		Very soft black peat		
- 10 -		Very soft black peat		
14-8		Very soft brown peat		
– 15 –		Very soft gray clay with organic matter traces		-
		Soft gray clay with silt streaks		
		Very soft gray slightly organic clay with shells		
- 20 -				
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		Very soft gray clay with 1" very silty clay layer		
– 25 –				
		Very soft gray clay with silty streaks		
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Pi	roject:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	17
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	State of Louisiana, Department of Natural Resources	Date: Technician:	18-Feb-03 BT
	П	c/o Sigma Consulting Group, Inc.	recnnician:	
e	ျှ	Undisturbed Sample	N 29° 52' 11.	
Depth Feet	SAMPLES	Standard Penetration Test Classification Sample	W 89° 41' 43	.02"
	SAI	(SLS) Slickensided	Boring Depth:	24 Feet
- 0 -				
		2 feet top of casing to top of barge deck		
		4 Feet top of barge deck to water surface		
		1 Foot water surface to mudline		
- 5 -		Foot water surface to mudime		
		Very soft black peat		
		Very soft black organic clay		
- 10 -		- Soft dark brown organic clay		
		- ₹ 7 44, 3300, 3010		
		Very soft dark brown organic clay		
– 15 –		Very soft dark brown organic clay		-
		No sample recovered		
	X	Very loose shells	3 blows per foot (1/2/1)	
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Pı	roject:	Shoreline Protection/Marsh Creation at Lake Borgne DNR Contract No. 2503-03-15 PO-30	Boring: File:	17A 02-115
	For	State of Louisiana, Department of Natural Resources	Date:	18-Feb-03
	3 2 2	c/o Sigma Consulting Group, Inc.	Technician:	BT
Depth Feet	SAMPLES	Undisturbed Sample Standard Penetration Test Classification Sample (SLS) Slickensided	Location was 20 ft. west of Coordinates were taken. Boring Depth:	f boring 17. No GPS 27 Feet
- 0 -		2 feet top of casing to top of barge deck		
Specification (Specification) and a		4 Feet top of barge deck to water surface		
- 5 -		1 Foot water surface to mudline		-
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- 10 <i>-</i>				-
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– 15 –		Song adit govs someon sizy		
		<u>L</u> vorg so ft teaching on		
- 20 -		Very soft dark gray organic clay with shells		
- 20 -				
		Very soft dark gray organic clay with shells		
- 25 -		Very seit gray slightly organic disc		_
		Very soft slightly organic clay		
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Geotechnical Engineers

1	Project:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	18
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	: State of Louisiana, Department of Natural Resources	Date:	18-Feb-03
		c/o Sigma Consulting Group, Inc.	Technician:	ВТ
_	S	Undisturbed Sample	N 29° 52' 03.	99"
Depth Feet	SAMPLES	Standard Penetration Test	W 89° 41' 17	William Control of the Control of th
"	SAM	Classification Sample		20 Enct
		(SLS) Slickensided	Boring Depth:	28 Feet
- 0 -		2 feet top of casing to top of barge deck		
		4 Feet top of barge deck to water surface		
- 5 -		2 Feet water surface to mudline		-
- 10-		Very soft black organic clay		
10		Very soft black organic clay		7
		Very soft gray slightly organic clay		
- 15-		Very soft gray slightly organic clay		
		Very soft brown peat		
- 20 -		Very soft gray slightly organic clay with shells		
- 25 -		Very soft gray slightly organic clay		
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		Very soft gray slightly organic clay		
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Р	roject:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	19
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	State of Louisiana, Department of Natural Resources	Date:	18-Feb-03
		c/o Sigma Consulting Group, Inc.	Technician:	ВТ
		Undisturbed Sample	N 29° 52' 02.	50"
Depth Feet	FE	Standard Penetration Test	W 89° 41' 08	
	SAMPLES	Classification Sample		
		(SLS) Slickensided	Boring Depth:	28 Feet
- 0 -	П	2 feet top of casing to top of barge deck		
	\vdash	4 Feet top of barge deck to water surface		
		go aconto trator carracto		
- 5 -		2 Feet water surface to mudline		-
- 10 <i>-</i>		Very soft black peat		
		Very soft black peat		
		Very soft dark gray organic clay		
– 15 –		Very soft dark gray organic clay		4
		Very soft brown peat all all all all all all all all all a		
		Very soft brown peat		
– 20 –	П	-		1
		Very soft gray slightly organic clay		,
– 25 –		-		
		- Very soft gray organic clay		
- 30 -				
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ı	Project	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	21
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	: State of Louisiana, Department of Natural Resources	Date:	18-Feb-03
	_	c/o Sigma Consulting Group, Inc.	Technician:	ВТ
	,	Undisturbed Sample	N 29° 58.98"	
Depth Feet	SAMPLES	Standard Penetration Test	W 89° 47.01"	Cp.
	SAM	Classification Sample		
		(SLS) Slickensided	Boring Depth:	28 Feet
- 0 -		2 Feet top of casing to top of barge deck		
		4 Feet top of barge deck to water surface		
	-			
- 5 -		2 Feet water surface to mudline		-
	-			
		- Very soft black organic clay		
- 10 -		-		4
		Very soft black peat made chay		
	-	Very soft brown peat		
- 15-		Very soft black organic clay		4
		Very soft black peat		
		Very soft gray slightly organic clay		
- 20 -		-		4
	4	A. A		
		- Very soft gray slightly organic clay		
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		- Very soft gray slightly organic clay		
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Pr	oject:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	22
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For:	State of Louisiana, Department of Natural Resources	Date:	19-Feb-03
		c/o Sigma Consulting Group, Inc.	Technician:	BT
		Undisturbed Sample	N 29° 51' 48	.04"
Depth Feet	SAMPLES	Standard Penetration Test	W 89° 39' 56	The second secon
۵ L	AME	Classification Sample		5.00 ± 5.00
200	o	(SLS) Slickensided	Boring Depth:	28 Feet
- 0 -	Economic et	2 feet top of casing to top of barge deck	the committee and the partition of the committee of the c	
		4 Feet top of barge deck to water surface		
		The second of second se		
- 5 -		2 Feet water surface to mudline		4
on the second second		Very soft black slightly organic clay with silt streaks		
- 10 -		-		-
		Very soft dark gray organic clay		
en e		Very soft gray organic clay with shells		
- 15 -		Soft gray clay with silt streaks and shells		* 1
	X	Loose shell with clay traces	5 Blows per foot (2/3/2)	
		Gray clay and shells		
- 20 -				
		Soft gray organic clay		
- 25 -	train	-		_
		Soft gray slightly organic clay		
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LOG OF BORING 23 Boring: Project: Shoreline Protection/Marsh Creation at Lake Borgne 02-115 File: DNR Contract No. 2503-03-15 PO-30 19-Feb-03 Date: For: State of Louisiana, Department of Natural Resources BT Technician: c/o Sigma Consulting Group, Inc. N 29° 51' 44.06" **Undisturbed Sample** W 89° 39' 40.87" Depth Feet Standard Penetration Test Classification Sample 28 Feet Boring Depth: (SLS) Slickensided 0 2 feet top of casing to top of barge deck 4 Feet top of barge deck to water surface 2 Feet water surface to mudline 5 Very soft black organic clay 10 Very soft black organic clay Firm gray slightly organic silt with clay traces Firm gray silt with clay traces 15-Firm gray silt with 1" clay layer Soft brown organic clay 20 Soft gray slightly organic clay 25 Soft gray slightly organic clay 30

LOUIS J. CAPOZZOLI & ASSOCIATES, INC.

Geotechnical Engineers

Pr	oject:	Shoreline Protection/Marsh Creation at Lake Borgne	Boring:	24
		DNR Contract No. 2503-03-15 PO-30	File:	02-115
	For	State of Louisiana, Department of Natural Resources	Date:	19-Feb-03
		c/o Sigma Consulting Group, Inc.	Technician:	ВТ
		Undisturbed Sample	N 29° 51' 42	.85"
Depth Feet	SAMPLES	Standard Penetration Test	W 89° 39' 30	.77"
	SAM	Classification Sample	D. C. D. H.	00 Foot
		(SLS) Slickensided	Boring Depth:	28 Feet
- 0 -		2 feet top of casing to top of barge deck		
		4 Feet top of barge deck to water surface		
- 5 -		2 Feet water surface to mudline		
10		Very soft brown slightly organic clay		
- 10 -		Very soft gray slightly organic clay		
		Very soft gray clay		
- 15 -		Firm gray sand with clay traces		<u>-</u>
		Soft gray slightly organic clay		
		Very soft gray organic clay		
- 20 -		-		1
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		Very soft gray clay with organic matter traces		
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		Very soft gray clay with organic matter traces		
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